

Wood Finishing & Refinishing

Fact Sheet #4

Removing Spots, Dents, and Surface Imperfections

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The beauty and quality of a final finish depends on how well the wood surface is prepared before the final finish is applied. Preparing the wood surface for staining and finishing not only involves sanding but also removing spots, deep dents, and other surface imperfections. Some minor spots, dents, and surface imperfections can be removed by light sanding, but deeper imperfections may need some other treatments.

Spots

One way to remove most dark spots and discoloration of the wood surface is to bleach the wood. Bleaching may not remove grease and oil stains. Some grease and oil stains can be removed with a dry cleaning solvent. When using bleaches, remember that all bleaches are made of strong chemicals and are dangerous to the skin and eyes. To protect your skin, wear shirts with long sleeves, and for the eyes, wear protective goggles or glasses. Work in a well-ventilated room.

Bleaching does not remove grease or oil stains. For oil or grease stains that have penetrated the wood surface, use tetrachloride (dry cleaning spot remover). Scrub with a stiff brush until grease or oil disappears. Allow to dry before sanding.

It is a good idea to test the bleach on an inconspicuous area before applying to the entire piece of furniture. Bleaching raises the wood grain, therefore additional sanding will be necessary after the wood has completely dried.

Commercial Bleaches

The most satisfactory and effective bleaches are commercial bleaches. They usually come in two parts, the bleach and the neutralizer. The procedure to use varies with the brand. Read and follow all the label directions.

Commercial bleaches are very powerful and can attack and soften animal glue in joints and under veneers. Try not to put the bleach directly on glued areas.

Oxalic Acid. Dark spots and discoloration of the wood surface are usually caused by water spots and can be removed with oxalic acid. Oxalic acid is also used to freshen wood color if it has become grayed. Oxalic acid can be obtained from your pharmacist.

Pour 2-4 tablespoons of oxalic acid crystals in a heat resistant glass jar and add one pint hot water. (The strength will vary according to your needs, 2 tablespoons for milder solutions and 4 tablespoons for stronger.)

Apply solution to entire surface evenly with a cloth, sponge, or brush. Do not apply just to the spot or discolored area. If you treat only the stained area, you have uneven bleaching with light spots rather than dark spots.

Let the solution remain on the wood 10-20 minutes. If the stain remains, apply more solution to the stained area only. Continue to apply until desired color is obtained.

To neutralize acid (stop bleaching action), wash the surface with a weak solution of 1 tablespoon clear (not sudsy) ammonia to 1 quart of water. If clear ammonia is not available, wash with a solution of 2 tablespoons borax dissolved in 1 pint of water. Wipe up excess moisture with absorbent cloths. Rinse with clear water and wipe with dry cloths. Remember that water will raise the grain of the wood. Let dry 24 hours before sanding. Sand down the raised grain or staining will be darker in the raised area.

Laundry Bleach. Ordinary household bleach is often used to bleach wood. Overall, ordinary laundry bleach is less effective than the other types of bleach. It often gives the bleached wood a yellow green tint. Some people increase the effectiveness of the laundry bleach by putting the coated item in the sunlight.

Dents, Depressions, Cracks, or Holes

There are a variety of methods for repairing dents, depressions, cracks, and holes. We will review a few.

Shallow dents in bare solid wood can be removed by raising the dent with steam. Do not use this method for removing dents on finished wood or veneer. The steam may scorch the finish and will raise the glued veneer. Also, be careful around glued joints; they can be loosened by steam. To remove a dent using steam, place a damp, heavy cloth over the dent. Press with a hot iron until the steam swells the wood. (See Figure 1, Using Steam and Heat to Remove Dents.) Rewet the cloth as it dries out. The steam causes the wood fibers to swell.

Repeat the process until the dented area is level with the surrounding wood surface. Let dry, then sand. Because steam opens the wood pores, the surface must be sanded thoroughly to “repack” the grain, otherwise the area will absorb the stain too rapidly and the surface color will be blotchy.

Putty or patch holes if the dents, depressions, and holes, cracks are very deep. Use a filler type material to fill the holes. There are many different types of repair materials, some more effective than others. There are lacquer sticks, plastic wood, wood dough, putty sticks, and wood patch. Lacquer sticks do not absorb stain, therefore, should be applied after staining wood surface. Wood dough and wood patch will absorb stain, but may absorb the stain differently than the wood surface. Therefore, it does take some thought and care to get good results when using them. Some wood fillers are precolored and some are not. Follow label instructions to get good results. Don't use filling materials in joints. The movement of the joints makes the filler fall out.

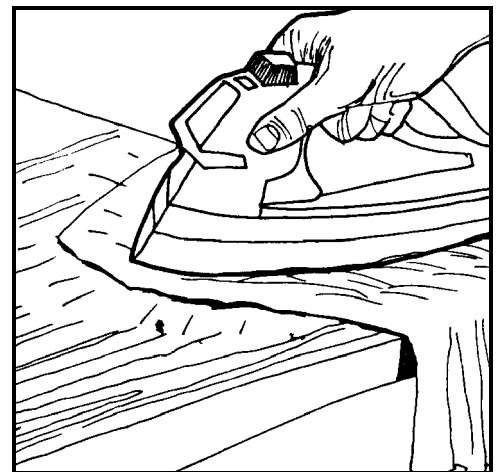


Figure 1. Using Steam and Heat to Remove Dents

Lacquer Sticks. Lacquer sticks are available in a wide range of colors and are effective in repairing deep depressions. Using lacquer sticks effectively, however, does require some skill and practice. Stain the wood before the lacquer stick is melted onto the wood surface.

Match the lacquer stick to the background stain color, not the wood grain color. The lacquer will look darker in the stick. Melt the stick with a soldering iron so it drips onto the wood surface—barely overfill the dent. (See Figure 2, Using a Lacquer Stick.) Using a heated spatula or knife, press the lacquer into the wood. (See Figure 3, Heated Spatula or Knife.) Let it set up and then sand with 400 grit sandpaper until smooth. Be careful not to sand the surrounding area. If you accidentally sand the surrounding area, you will have to stain again.

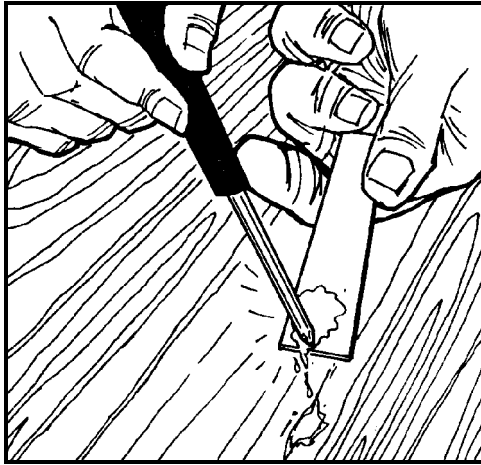


Figure 2. Using a Lacquer Stick

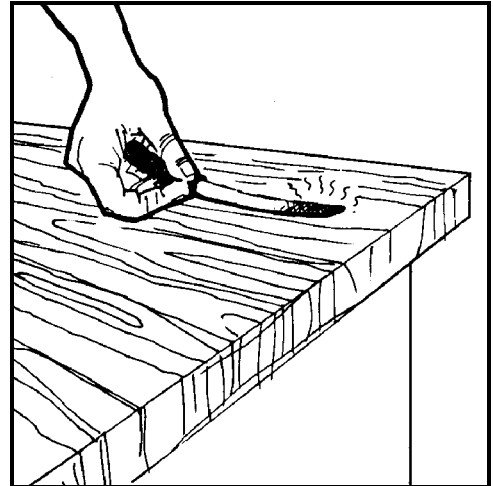


Figure 3. Heated Spatula or Knife

To match lacquer stick stain to the wood pore color of the wood surface, mix oil paints the color of the wood grain color with the clear finishing material. Use a fine brush to paint the wood pores onto the lacquer stick patched area and let dry.

Plastic Wood. Plastic wood will not absorb the stain once it has dried. Therefore, before application of plastic wood, premix a small amount of pigmented stain with the plastic wood to match stained furniture piece. Match the plastic wood color to the background color of the stained wood. With a putty knife, apply the patching material. Be sure to compress it firmly into the voids to guarantee good adhesion. Fill the hole to overflowing. Then sand surface smoothly when patch is dry.

Wood Dough. Wood dough is made in colors to match most woods. Apply to clean surface with spatula. Fill cavity slightly above finished surface and sand when dry.

Wood Patch. Wood patch is made of cellulosic putty and will absorb stain. For best results, stain the wood furniture piece. Apply wood patch with a putty knife. Press material into cavity and allow it to dry. Sand flush with wood surface. Stain wood patch to match surrounding color. Use the background color. If the wood patch still doesn't match surrounding wood, mix artist oil paints with the clear finish you're going to use for the final finish. Paint the patched area only. After this has dried, mix oil paints with finish material to match grain color. Paint the grain pattern onto the wood and let it dry. Then apply final finish to whole piece of furniture.

Putty Stick. These come pre-colored. Therefore, select the putty stick to match

wood stain and finish. Rub the putty stick back and forth over nail holes or other defects until well-filled. Wipe off surplus with a clean cloth. Remember to finish first and use putty stick last.

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